CLAIMS

What is claimed is:

1   1.   A method of automatically identifying and resolving one or more discrepancies in an
2   outsourced manufacturing supply chain in which an enterprise and a plurality of its
3   supply chain partners participate, the method comprising the computer-implemented
4   steps of:
5   receiving first supply chain event information representing one or more first supply
6   chain events from each of the supply chain partners at a database with which
7   each of the supply chain partners may communicate over a network;
8   periodically applying one or more rules to the first supply chain event information;
9   generating one or more alerts pertaining to one or more discrepancies that are found in
10   the supply chain event information, based on applying the rules;
11   communicating one of the alerts to only those supply chain partners who are
12   participating in a transaction to which the discrepancies relate;
13   receiving second information that represents a second supply chain event that resolves
14   the alert;
15   resolving the alert in the database based on the second information.

1   2.   A method as recited in Claim 1, further comprising the step of periodically escalating
2   the alert to one or more pre-defined parties associated with each of the supply chain
3   partners who are participating in the transaction to which the discrepancies relate,
4   until the second information is received.

1   3.   The method as recited in Claim 2, wherein the step of periodically escalating the alert
2   comprises the steps of:
3   determining a set of one or more new unsent alerts;
4   consolidating the set of new unsent alerts by rule and by recipient;
5   sending the consolidated alerts to each recipient in a message that is organized by
6   rule.

1   4.   A method as recited in Claim 1, wherein the step of receiving first supply chain event

2   information further comprises the steps of:

3   receiving the first supply chain event information in the form of one or more

4   electronic documents that are formatted as Partner Integration Process

5   documents in a staging database;

6   validating the electronic documents according to Partner Integration Process

7   standards;

8   importing only those electronic documents that are validated successfully into an

9   alerts database that is logically separate from the staging database.

1   5.   A method as recited in Claim 1, wherein the steps of generating and resolving further

2   comprise the steps of:

3   periodically evaluating one or more existing alerts that are stored in an alerts table of

4   the database;

5   determining whether a particular existing alert is marked as resolved; and

6   removing the particular existing alert from the alerts table.

1   6.   The method as recited in Claim 5, wherein periodically applying rules comprises the

2   steps of applying an Expected Delivery Disconnect rule to identify one or more

3   differences between a Buy-Side Partner's PO delivery date and quantity and a Sell-

4   Side Partner's Sales Order delivery date and quantity.

1   7.   The method as recited in Claim 5, wherein periodically applying rules comprises the

2   steps of applying an Unplaced Purchase Order rule to identify planned purchase

3   orders for which an actual purchase order has not yet been placed.

1   8.   The method as recited in Claim 5, wherein periodically applying rules comprises the

2   steps of applying a Late Purchase Order Receipt rule to identify purchase orders that

3   have late receipts to a Buy-Side Partner.

1   9.   The method as recited in Claim 5, wherein periodically applying rules comprises the

2   steps of applying a Late Sales Order Shipment rule to identify sales orders having late

3   ship dates to the Buy-Side Partner.

1   10.   The method as recited in Claim 5, wherein periodically applying rules comprises the

2   steps of applying a Late Trigger Start rule to identify Work Orders having late starts

3   to the enterprise, based on late trigger starts.

1   11.   The method as recited in Claim 5, wherein periodically applying rules comprises the

2   steps of applying a Supply/Demand Disconnect rule to identify when a Partner's

3   Gross Component Demand exceeds its Supply over the course of the planning period.

1   12.   The method as recited in Claim 5, wherein periodically applying rules comprises the

2   steps of:

3   receiving a set of updated manufacturing resource planning (MRP) data from a first

4   supply chain partner;

5   applying a MRP Profile rule that results in generating a user interface display that

6   summarizes how the supply chain is affected by one or more changes reflected

7   in the MRP data.

1   13.   The method as recited in Claim 5, wherein periodically applying rules comprises the

2   steps of applying a Baseline Forecast Disconnect rule to identify a difference between

3   a baseline forecast of a Buy-Side Partner and a forecast of said partner for a current

4   week.

1   14.   The method as recited in Claim 5, wherein periodically applying rules comprises the
2   steps of applying a Forecast Time Fence Disconnect rule to identify a difference
3   between a Current Forecast of the enterprise and a previous week forecast in
4   comparison to a Time Fence Agreement that the enterprise has entered into with the
5   partner.

1   15.   The method as recited in Claim 5, wherein periodically applying rules comprises the
2   steps of applying a Lead Time Disconnect rule to identify one or more differences in
3   Lead Times between a Buy-Side Partner and a Sell-Side Partner.

1   16.   The method as recited in Claim 5, wherein periodically applying rules comprises the
2   steps of applying a Sales Order Change rule to identify one or more purchase orders
3   that have changed and that will affect current Sales Orders.

1   17.   The method as recited in Claim 5, wherein periodically applying rules comprises the
2   steps of applying a Top Level Demand Disconnect rule to identify one or more
3   differences between a forecast of the enterprise and a master production schedule load
4   of a contract manufacturer that is one of the supply chain partners.

1   18.   The method as recited in Claim 5, wherein periodically applying rules comprises the
2   steps of applying a Lead Time/Delivery Date Disconnect rule to identify one or more
3   purchase orders that have been placed with Lead Times different than quoted Lead
4   Times.

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1   19.   A computer-readable medium carrying one or more sequences of instructions for

2   automatically identifying and resolving one or more discrepancies in an outsourced

3   manufacturing supply chain in which an enterprise and a plurality of its supply chain

4   partners participate, which instructions, when executed by one or more processors,

5   cause the one or more processors to carry out the steps of:

6   receiving first supply chain event information representing one or more first supply

7   chain events from each of the supply chain partners at a database with which

8   each of the supply chain partners may communicate over a network;

9   periodically applying one or more rules to the first supply chain event information;

10   generating one or more alerts pertaining to one or more discrepancies that are found in

11   the supply chain event information, based on applying the rules;

12   communicating one of the alerts to only those supply chain partners who are

13   participating in a transaction to which the discrepancies relate;

14   receiving second information that represents a second supply chain event that resolves

15   the alert;

16   resolving the alert in the database based on the second information.

1   20.   An apparatus for automatically identifying and resolving one or more discrepancies in

2   an outsourced manufacturing supply chain in which an enterprise and a plurality of its

3   supply chain partners participate, comprising:

4   means for receiving first supply chain event information representing one or more

5   first supply chain events from each of the supply chain partners at a database

6   with which each of the supply chain partners may communicate over a

7   network;

8   means for periodically applying one or more rules to the first supply chain event

9   information;

10   means for generating one or more alerts pertaining to one or more discrepancies that

11   are found in the supply chain event information, based on applying the rules;

12   means for communicating one of the alerts to only those supply chain partners who

13   are participating in a transaction to which the discrepancies relate;

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14   means for receiving second information that represents a second supply chain event

15   that resolves the alert;

16   means for resolving the alert in the database based on the second information.

1   21.   An apparatus for automatically identifying and resolving one or more discrepancies in

2   an outsourced manufacturing supply chain in which an enterprise and a plurality of its

3   supply chain partners participate, comprising:

4   a network interface that is coupled to the data network for receiving one or more

5   packet flows therefrom;

6   a processor;

7   one or more stored sequences of instructions which, when executed by the processor,

8   cause the processor to carry out the steps of:

9   receiving first supply chain event information representing one or more first

10   supply chain events from each of the supply chain partners at a

11   database with which each of the supply chain partners may

12   communicate over a network;

13   periodically applying one or more rules to the first supply chain event

14   information;

15   generating one or more alerts pertaining to one or more discrepancies that are

16   found in the supply chain event information, based on applying the

17   rules;

18   communicating one of the alerts to only those supply chain partners who are

19   participating in a transaction to which the discrepancies relate;

20   receiving second information that represents a second supply chain event that

21   resolves the alert;

22   resolving the alert in the database based on the second information.

1   22.   An apparatus for automatically identifying and resolving one or more discrepancies in
2   an outsourced manufacturing supply chain in which an enterprise and a plurality of its
3   supply chain partners participate, comprising:
4   a network interface that is coupled to the data network for receiving one or more
5   packet flows therefrom;
6   an alerts subsystem that is communicatively coupled to a database table that includes
7   first supply chain event information representing one or more first supply
8   chain events from each of the supply chain partners;
9   rule logic that is communicatively coupled to the alerts subsystem and that is
10   configured to periodically apply one or more rules to the first supply chain
11   event information and generate one or more alerts pertaining to one or more
12   discrepancies that are found in the supply chain event information, based on
13   applying the rules; and
14   alert delivery logic that is communicatively coupled to the alerts subsystem and that is
15   configured to communicate one of the alerts to only those supply chain
16   partners who are participating in a transaction to which the discrepancies
17   relate.

1   23.   An apparatus as recited in Claim 22, wherein the rule logic further is configured to
2   receive second information that represents a second supply chain event that resolves
3   the alert and to resolve resolving the alert in the database table based on the second
4   information.

1   24.   An apparatus as recited in Claim 23, further comprising alert escalation logic that is
2   configured to periodically escalate the alert to one or more pre-defined parties
3   associated with each of the supply chain partners who are participating in the
4   transaction to which the discrepancies relate, until the second information is received.

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1   25.   An apparatus as recited in Claim 24, further comprising an administrative subsystem

2   configured to enable an administrative user to create and store one or more values that

3   define the pre-defined parties and one or more other characteristics of the supply

4   chain partners.

1   26.   An apparatus as recited in Claim 22, further comprising user interface generating

2   logic that is configured to generate one or more user interface pages for delivery to a

3   logically separate display station, wherein one of the user interface pages comprises a

4   summary view of one of the alerts, and includes one or more links to detailed views of

5   information related to the one of the alerts that is shown in the summary view.

1   27.   An apparatus as recited in Claim 22, further comprising user interface generating

2   logic that is configured to generate one or more user interface pages for delivery to a

3   logically separate display station, wherein one of the user interface pages comprises a

4   summary view of one of the alerts, and includes one or more links to detailed views of

5   information related to the one of the alerts that is shown in the summary view,

6   wherein the links are selected from among a plurality of links relating to all alerts and

7   include only links that specifically pertain to the one of the alerts that is shown in the

8   summary view.

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